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**Remarks:**

Claims 1-9 and 11-13 have been amended and claims 10 and 14-15 have been cancelled. Accordingly, claims 1-9 and 11-13 are currently pending for consideration.

**I. Amendments:**

Amended claim 1 now recites that silica sol having an S-value from about 15 to about 45% and the weight ratio of silica to mineral acid is from about 1:100 to about 25:100. Support for amended claim 1 can be found in the specification at page 1, lines 28-29 and original claim 10. Accordingly, no new matter has been added.

Amended claim 2 now recites that the S-value is from about 15 to about 40% and amended claim 3 recites that the S-value is from about 15 to about 35%. Support can be found in the specification at page 1, lines 27-30 and original claim 3. No new matter has been added.

Claims 4-9 and 11 have been amended to remove multiple dependencies and instead indicate that each claim depends from claim 1. No new matter has been added.

Claim 12 has been amended to be consistent with claim 1 and claim 13 has been amended to be consistent with the silica to mineral acid ratio as specified in claim 1. Again, no new matter has been added.

**II. The Invention:**

The presently claimed invention is directed to a method for preparing a composition that includes mixing a silica sol having an S-value from about 15 to about 45% and a mineral acid, wherein the weight ratio of silica to mineral acid is from about 1:100 to about 25:100.

The composition, when applied as a gelled electrolyte results in longer service life, shorter gelling time and improved gel strength.

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**III. Objections/Rejections:****Objections**

Claims 4-12, 14 and 15 were objected to under 37 CFR 1.75(c) as being in improper form.

Applicants respectfully submit that based on the amendments to these claims, they are now in proper form and the objections are now moot. Accordingly, it is respectfully requested that these objections be withdrawn.

**35 USC §102**

Claims 1-3 stand rejected under 35 U.S.C. § 102(b), as being anticipated by Johansson et al (US 5,368,833), Keiser et al (US 6,372,806) or Persson et al (US 2002/0147240). The Applicants respectfully traverse.

Johansson et al is directed to silica sols having a high content of microgel and aluminum modified particles with high specific surface area.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Applicants respectfully submit that they are unaware of any disclosure of mixing a silica sol with mineral acid.

The Office Action cites to Col.2, l.58-61 of Johansson to support the contention with respect to mineral acid being used in the process. However, Applicants respectfully submit that the mineral acid mentioned is employed in the acidification of water glass. An acid sol is obtained after acidification (col.3, l.8) which is subsequently made alkaline. The S-value of the forming silica sol during the

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alkalization step can be controlled by keeping the silica content within a particular range (col.3, l.37-43). The obtained silica sol of example 1A has an S-value of 32 and a pH value of about 9.5. The obtained silica sol (S-value 32) is not mixed with a mineral acid. The silica sol of example 1B is further processed from silica sol of example 1A. Applicants are unaware of any specific S-value being indicated in example 1B (the 15% value referred to in the Office Action appears to be for the degree of aluminum substitution, not the S-Value). The S-value of example 1C is 13% (outside present claim 1 of the instant application). The obtained silica sol obtained after alkalization is not mixed with a mineral acid.

Therefore, it is respectfully submitted that the mineral acid of Johansson is used before the silica sol has been formed. Johansson is thus silent on silica sol composition having an S-value within the claimed range (claim 1) and a mineral acid, particularly within the claimed weight ratio of silica to mineral acid.

Keiser et al disclose a process for providing a stable colloidal silica (col.1, l.50) consisting in the preparation of an initial composition (heel) followed by addition of a source of active silica such as silicic acid or polysilicic acid whereupon the mixture is concentrated. The initial heel is composed of water, silicates or alkali water glasses, and an acid and/or corresponding salt thereof in a prescribed ratio (col.2, l.66-col.3, l.18). Any of the acids enumerated in col.3, l.25-28 (lines referred to in the Office action) may be used.

However, Applicants respectfully submit that they are unaware of any disclosure by Keiser et al regarding mixing obtained silica sols with a mineral acid, particularly silica sols having S-values within the claimed range. Applicants submit that the S-values of the examples refer to obtained silica sols which are not mixed with a mineral acid.

Persson discloses also a process for producing an aqueous sol containing silica-based particles wherein an aqueous silicate solution is acidified by means of e.g. a mineral acid (abstract, section [0017]). Again, Applicants respectfully submit

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that they are unaware of any disclosure by Persson et al of an obtained silica sol mixed with a mineral acid.

Thus, similar to Johansson et al, it is respectfully submitted that claim 1 is novel with respect to either Keiser et al or Persson et al, since neither disclose a silica sol per se mixed with the mineral acid.

Therefore, as none of the cited references disclose each and every element as set forth in the present claims and do not show the identical invention in as complete detail as claimed, it is respectfully submitted that none of the references can anticipate the present claims. See *Verdegaal Bros.*, 814 F.2d at 631 and *Richardson*, 868 F.2d at 1236.

Accordingly, it is respectfully requested that the rejections of claims 1-3 under 35 U.S.C. § 102(b), as being anticipated by Johansson et al, Keiser et al or Persson et al, be withdrawn.

#### 35 USC §102/103

Claim 13 stands rejected under 35 U.S.C. §102(b), as anticipated by, or in the alternative, under 35 U.S.C. §103(a), as being obvious over either Johansson et al, Keiser et al or Persson et al. Applicants respectfully traverse.

Applicants respectfully submit that, for the reasons discussed above, claim 13 is also novel since none of the cited references disclose a network of silica particles within the defined particle diameter range in combination with a mineral acid.

With respect to the alternative 35 U.S.C. § 103(a) rejection, Applicants respectfully submit that it would not be obvious for a skilled person to provide a network of silica particles and mineral acid as set out in claim 13, since the cited references merely address mixing a silicate with, e.g., a mineral acid, which is subsequently alkalinized to provide the final silica sol.

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Accordingly, it is respectfully requested that the rejections of claim 13 under 35 U.S.C. §102(b), as anticipated by, or in the alternative, under 35 U.S.C. §103(a), as being obvious over either Johansson et al, Keiser et al or Persson et al, be withdrawn.

**Conclusion:**

In light of the foregoing, Applicants respectfully submit that the application as amended is now in proper form for allowance, which action is earnestly solicited. If the Examiner has any questions relating to this Amendment or to this application in general, it is respectfully requested that the Examiner contact Applicants' undersigned attorney at the telephone number provided below.

Respectfully submitted,



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